



Clark County Department of Building & Fire Prevention

Building Division – Inspection Services

Field Inspection Guideline

SUBJECT: Acoustic Tile Grid Ceiling Requirements			FIG-B-007
Effective Date: November 14, 2003	Revised: June 04, 2014	Approved By: BAT	
Code Chapter: 2012 IBC Section 808 & 1613.1			Page 1 of 3

General requirements for all ceilings

- ❖ Suspended ceiling inspection shall be done after all rough inspections above the ceiling area have been approved.
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- ❖ Suspended ceiling installations shall meet the requirements of seismic category D unless specifically noted as category C on the structural and/or architectural general note page(s).
- ❖ Approved architectural plans shall reflect compression strut construction when struts are required.
- ❖ Seismic bracing layout shall start within 6 feet from two adjacent walls and shall be spaced a maximum of 12 feet on center across the space in both directions. (Per CISCA seismic zones 3&4, #3 lateral force bracing, page 2). The 12 foot spacing will continue across the space with no remaining area or linear measurement to be greater than 12 feet.
- ❖ Tee sections 6 inches or less in length along the wall angle do not require perimeter wires.
- ❖ Items weighing less than 5 pounds shall be supported from the grid and may have a single slack wire.
- ❖ Trapeze suspensions shall be a minimum of back-to-back 1 ¼ inch cold-formed channels for spans exceeding 48 inches.
- ❖ Suspension hanger wires shall be a minimum 12 gauge, spaced 4 feet on center.
- ❖ Suspension hanger wires shall have three full turns within 3 inches of connection points.
- ❖ Suspension wires shall not hang more than 1 in 6 out-of-plumb unless counter sloping wires are provided.
- ❖ Fixtures 56 pounds or less shall have two slack wires attached to the structure.
- ❖ Fixtures over 56 pounds shall be independently supported from the structure.
- ❖ All conduit, MC cable and plenum rated cable shall have their own support system and shall not use the ceiling support wires. The electrical support wires can be connected to the ceiling system.

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Seismic category “D” requirements

All work shall be in accordance with ASTM C636, IBC sections 808, 1613.1 and CISCA 3-4 Standard. Listed below are the main requirements:

1. A “heavy duty” T-bar grid system is required to be used in all applications.
2. Ceiling areas of 144 square feet or less, **DO NOT** require seismic bracing and struts.
3. Wall molding shall have a minimum 2 inch wide horizontal flange unless a listed alternate is used (Berc clip).
4. Wall molding is not structural, but must be attached to the wall.
5. The ceiling grid shall be rigidly attached to the molding at two adjacent walls.
6. The unattached ends of the grid system shall have minimum $\frac{3}{4}$ inch clearance from the wall and rest on the wall molding.
7. All terminal ends around the perimeter shall be supported within 8 inches of the wall.
8. Unrestrained terminal ends shall be secured together to prevent their spreading. Spreader bars shall be inspected as part of the building final inspection.
9. Seismic splay wire bracing shall be clusters of four wires, of a minimum 12 gage, attached within 2 inches of the cross tee intersection. Wires shall be arrayed 90° from each other at an angle not exceeding 45° from horizontal.
10. An approved compression strut shall be attached to the ceiling at each bracing location, in accordance with the approved plan details.
11. Changes in ceiling plane elevation shall have positive framed bracing means to the structure.
12. Walls/partitions shall be braced independent of the ceiling. (Ceilings shall not support the wall).
13. Ceiling areas greater than 2,500 square feet shall have seismic separation joints per approved plan design.
14. All fixtures shall be positively attached to the ceiling system. The attachment device shall be able to withstand 100% of the weight of the fixture acting in any direction.
15. Cable trays, electrical conduit and wiring systems shall be supported and braced independently of the ceiling.
16. Mechanical services shall be positively attached to the ceiling system main beams or to cross tees with the same load carrying capacity.

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Seismic category “C” requirements

All work shall be in accordance with IBC 1613.1 and CISCA 0-1 Standard. Listed below are the specific requirements:

The objective of this standard is to create an **unrestrained** ceiling.

1. The actual ceiling weight including all fixtures and air terminals shall be less than 2.5 pound per square foot. This shall be noted on the plans.
2. Wall moldings may have a 7/8 inch minimum wide horizontal flange.
3. The terminal ends of the grid must rest on the molding with at least 3/8 inch clearance from the wall and at least 3/8 inch support on the molding.
4. Perimeter attachment is not allowed on any side.
5. Partitions shall be braced independent of the ceiling; any attachment to the ceiling must allow 3/8 inch movement of the ceiling in any direction.
6. All terminal ends shall be secured together to prevent their spreading.
7. Penetrating items such as sprinkler heads shall have one inch clearance around them.

Revision History:

Reference #	Title	Effective Date	Revised	Reviewed
FIG-B-007	Acoustic Tile Ceiling Grid Requirements	July 05, 2006	June 6, 2013	
FIG-B-007	Acoustic Tile Ceiling Grid Requirements		June 04, 2014	